

"Lately, he has looked pale, and has lost flesh. His appetite is good, and the bowels are active. His manner is quiet and his disposition amiable. He is a good man of business, and is fond of reading. In intellectual power he is by no means deficient, but his early opportunities have been limited.

"During the attack in the year 1848, he frequently suffered from spasmodic trismus, which generally commenced soon after he awoke, and persisted for many hours. His jaws were always firmly locked, and at the same time he complained of pain in the back and neck. This affection, however, has never reappeared."

20. *Incubation of Hydrophobia.*—M. RENAULT informs the Academy of Sciences that during the last twenty-four years he has, at Alfort, made numerous experiments for the purpose of learning the period of incubation of hydrophobia in the dog. During that period, 131 dogs have, under conditions (which he describes), been either bitten by mad dogs under his own observation, or have been inoculated by him with the foam as immediately collected from the mad animals. Of this number, 63 having presented no signs of disease during the four subsequent months, were not further observed. Of the 68 others, the hydrophobia was developed at various periods, as shown in the following table:—

In 1 dog	between the 5th and 10th day.
4 dogs	" 10th and 15th day.
6 "	" 15th and 20th day.
5 "	" 20th and 25th day.
9 "	" 25th and 30th day.
10 "	" 30th and 35th day.
2 "	" 35th and 40th day.
8 "	" 40th and 45th day.
7 "	" 45th and 50th day.
2 "	" 50th and 55th day.
2 "	" 55th and 60th day.
4 "	" 60th and 65th day.
1 dog	" 65th and 70th day.
4 dogs	" 70th and 75th day.
2 "	" 80th and 90th day.
1 dog	" 100th and 120th day.

*British Med. Journ.*, Feb. 21, 1863.

21. *Action of the Hypophosphites of Soda and Lime, the so-called "Specific" for Tubercular Diseases.*—Dr. R. P. Cotton has instituted some experiments with these boasted specifics of Dr. Churchill in consumption, at the hospital for consumption, Brompton, and relates (*Lancet*, Nos. for April 25th and May 2d, 1863) 12 cases in which he employed those articles. The following are his conclusions:—

In taking a general review of these 12 cases, it should be remarked in the first place that they were, with only two exceptions (Nos. 1 and 2) of a promising class; for if either an unpromising or hopeless set of cases had been selected for the experiments, it might reasonably have been urged that the hypophosphites had not had a fair trial. Of the twelve patients, six improved more or less under treatment; and in six the disease progressed. Of the six unimproved cases, two improved in a greater or less degree under subsequent treatment; whilst each one of the six cases which underwent improvement did just as well, and, in at least two instances, apparently better, under equally simple treatment. In every case the greatest care was taken to observe the *immediate* effect of the phosphatic salt, and in no one instance was Dr. Churchill's statement that "from the very first day there is frequently observed a remarkable increase of nervous power," &c., verified. No particular effect, indeed, seemed to accompany its use; and in no case was the substitution of the simple mixture of carbonate of soda and syrup attended with any alteration in the symptoms, and only once was such a substitution detected by the patient. Whenever the change was

made it seemed to matter nothing, so far as the disease and its symptoms were concerned, whether the patients were taking the one mixture or the other.<sup>1</sup>

If there existed even the minutest *specific* action in the hypophosphites, it would surely have exhibited itself in some way or other in the course of these experiments. Even in the two unpromising cases (Nos. 1 and 2) we might fairly have looked for at least an amelioration of some one or more of the symptoms; whilst it is only reasonable to expect that any "specific" relation between the hypophosphites and tubercular disease would have been rendered apparent when, in some of the other cases, the *hypophosphite* of soda was exchanged for the *carbonate*.

I have no hesitation in declaring my conviction that the hypophosphites of soda and lime have not the slightest *specific* action in tubercular diseases, and that the benefit which may sometimes follow their employment is solely attributable to their simple, unirritating, and alkaline properties. I believe, indeed, that in the soda and lime dwells their chief if not their only usefulness. In this conclusion Dr. Risdon Bennet, in the paper to which I have already referred, perfectly coincides. In the few cases in which he found the hypophosphites serviceable he attributes the benefit to the abandonment of tonics unsuited to the irritable condition of stomach in the particular cases, and states his belief that "*The patients would have been as well with a little lime-water, citrate of potash, or any other equally innocuous agents.*"

Phthisis is ever different in its character and symptoms. Some cases need tonics, some require only the most simple treatment, whilst others seem to yield as well if not better to good plain diet and sanitary conditions than to any kind of medicine. I have over and over again kept patients for weeks together under no other *medicine* than a simple mixture of gentian and hydrocyanic acid, combined, according to special circumstances, either with soda or a mineral acid; and I have known many such patients leave the hospital with all their symptoms arrested, and calling themselves "cured." Yet no one, I should imagine, would on that account give the title of *specific* either to gentian, soda, or a mineral acid. There is no medicine, however potent or however mild, which might not be called a *specific for consumption*, if only a certain number of cases be taken into account, and if the many circumstances which may have conduced to their improvement be either carelessly or wilfully overlooked.

Some time back I met with a physician who assured me that he had seen the very best effects from the hypophosphites. Upon inquiry I found that he had been in the habit of prescribing either the hypophosphite of *iron* or *quinine*, or both of them together. Such a trial I deem most inconclusive. We know that both the *citrate* of quinine, and the *citrate* of quinine and iron are also excellent remedies in many cases of consumption; but it is clear that it is to the base and not to the acid of these salts that their good effect is due. It is no more the *hypophosphorous acid* in the one instance which is beneficial than it is the *citric acid* in the other.

My recent experience of the hypophosphites is not limited to the twelve cases I have described. I have tried both the hypophosphite of lime and of soda in seven or eight other hospital patients, special notes of whose cases were not taken. In one of these, in which dyspepsia was a prominent symptom, I *commenced* with the carbonate of soda and syrup mixture, under which for three weeks the patient rapidly improved. The hypophosphite of soda was then taken for three successive weeks with continued improvement; after which steel was administered with equal advantage. In this case not the slightest difference

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<sup>1</sup> The following statement upon these points is from a note by Dr. Rutter, the resident clinical assistant at the hospital: "In the advanced cases the disease progressed apparently not in the least affected by the hypophosphite. In more favourable ones, different degrees of improvement took place during its exhibition, but in none of these was the change for the better greater or more rapid than is commonly effected in such cases by the hygiene of the hospital, aided perhaps by other medicines. Cases which were improving under the hypophosphite continued to do so in an equal degree when a mixture made of simple syrup with a little bicarbonate of soda was substituted for it."

was observable with the change of treatment; a similar effect and equal benefit seemed to follow each of the remedies, and if the title of "specific" were due to the hypophosphite, it was equally deserved by the carbonate of soda and the steel. This was, in fact, a simple case of consumption, the type of hundreds of others, in which the most simple treatment is the most successful, and in which rest and improved diet, with proper hygiene, are the chief agents for good. In the remainder of these cases the general results were the same as in those I have detailed, the phosphatic salt invariably exhibiting itself as a simple, unirritating substance, adapted like many other simple alkaline salts, to certain varieties of consumption, but having not even the shadow of a claim to anything like "specific" influence upon tubercular disease.

22. *Action of Phosphoric Acid upon Phthisis.* By R. P. COTTON, M.D.—Phosphoric acid has been so long and successfully used as a tonic and antiseptic, especially in cases of depressed nervous power, that some good result might reasonably be expected from its administration in many cases of phthisis. With a view of testing its influence, I prescribed it, as in my previous experiments, in twenty-five cases of chronic and uncomplicated consumption, and carefully noted the results. Of these twenty-five cases, twelve were in the first stage, four in the second, and nine in the third stage of the disease. Fifteen were males and ten females.

Three patients experienced great improvement whilst taking the phosphoric acid, eight improved a little, and fourteen of the cases seemed either to derive no benefit or to become worse. None of them increased materially in weight, the greatest increase not exceeding two pounds, except in one instance, where seven pounds were gained, but in this case it was afterwards found that cod-liver oil had been taken in addition to the phosphoric acid.

Two of the greatly improved cases were in the third stage of the disease, and it was generally observed that most of the improved were either in an advanced condition of disease or belonged unmistakably to what is commonly understood as the cachectic class, leading to the conclusion that the phosphoric acid acted simply in virtue of its general tonic and upholding influences, and not from any specific action upon the tubercular disease.

It was prescribed in doses of fifteen minims of the *Acidum Phosphoricum dilutum* of the London Pharmacopœia, in a little water two or three times a day. As a general rule it agreed very well with the patients, improving the appetite and diminishing undue secretion, whether from the skin or mucous membranes. In four cases, however, it was discontinued, seeming to produce griping pains in the bowels, together with nausea and diminished appetite.

In estimating its effects, even in the most satisfactory cases, it appeared to me that the improvement was inconsiderable in comparison with what had previously been noticed in some other remedies; whilst several of the patients who either improved very slightly or doubtfully under the phosphoric acid, improved afterwards under other treatment. Four of the patients improved greatly in health when steel wine was taken in conjunction with the acid, the latter being given twice a day, and the former immediately after dinner. It will be remembered that a combination of steel wine with quinine was formerly found to be productive of good in a considerable number of cases (*Medical Times and Gazette*, August 30, 1862).

Upon the whole, I confess to having been disappointed in the action of phosphoric acid taken singly. In some cases, however, where it has been prescribed either with other tonics or in chemical combination with iron, I have found it of great use in the treatment of phthisis.

From these observations I have arrived at the following conclusions: 1. That the dilute phosphoric acid acts beneficially as a tonic in certain consumptive cases; but that, as a general rule, it is inferior to some of the other mineral acids. 2. That when taken in conjunction with iron its good effects appear to be considerably enhanced.—*Medical Times and Gazette*, May 30th, 1863.

23. *Therapeutical Value of Cod-liver Oil in Chronic Convulsive Diseases.*—Dr. ANSTIE read a paper on this subject before the Western Medical and Sur-